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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,036	10/25/2005	Toru Okabe	P/2850-102	2806
2352 7590 07/19/2007 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			EXAMINER ZHU, WEIPING	
			ART UNIT 1742	PAPER NUMBER
			MAIL DATE 07/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/517,036	<b>Applicant(s)</b> OKABE ET AL.	
	<b>Examiner</b> Weiping Zhu	<b>Art Unit</b> 1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-11 are currently under examination, wherein claims 1, 4, 5 and 7 have been amended in applicant's amendment/remarks filed on June 5, 2007. The applicant affirmed the provisional election of the Invention of I, claims 1-11 made with traverse over the phone on January 22, 2007 in the same amendment/remarks. Claims 12-15 are withdrawn from further consideration in the present application.

### ***Status of Previous Rejections***

2. The previous objections to claims 4, 5 and 7 are withdrawn in light of applicant's amendments filed on June 5, 2007. The previous rejections of claims 1-3 and 6-11 under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. (US 6,136,062) in view of Takahar et al. (US 5,417,917); the previous rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. ('062) in view of Takahar et al. ('917) as applied to claim 1 above and further in view of Honma et al. (US 3,839,020); and the previous rejections of claim 5 under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. ('062) in view of Takahar et al. ('917) as applied to claim 1 above and further in view of Kamei et al. (US 6,015,527) in the Office action dated February 5, 2007 are maintained as follows:

### ***Comments***

3. The "a" in line 2 of claim 5 should be changed to "the"; and  
The "or" in line 3 of claim 5 should be changed back to "and".  
Proper corrections are required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. (US 6,136,062) in view of Takahar et al. (US 5,417,917) as stated in the Office action of February 5, 2007.

With respect to the amended features of claim 1, Löffelholz et al. ('062) teaches magnesium as the active metal (col. 1, lines 62-65), which is identical to the claimed active metal, and the reducing temperature of 750-950° C (col. 1, lines 49-59), which overlaps the claimed reducing temperature range. Therefore, the vapor pressure of magnesium in the reducing system of Löffelholz et al. ('062) would be similar to that in the reducing system of the instant invention. Löffelholz et al. ('062)'s teaching renders the amended feature of claim 1 obvious to one of ordinary skill in the art.

With respect to the amended features of claims 4, 5 and 7, they do not change the scope of the claims; therefore, the reasons for the rejections as stated in the Office action of February 5, 2007 are properly applied herein.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. ('062) in view of Takahar et al. ('917) as applied to claim 1 above and further in view of Honma et al. (US 3,839,020) as stated in the Office action of February 5, 2007.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Löffelholz et al. ('062) in view of Takahar et al. ('917) as applied to claim 1 above and further in view of Kamei et al. (US 6,015,527) as stated in the Office action of February 5, 2007.

***Response to Arguments***

7. The applicant's arguments filed on June 5, 2007 have been fully considered but they are not persuasive.

First, the applicant argues that Löffelholz et al. ('062) do not teach the amended features in claim 1. In response, see the rejection of the amended features of claim 1 in the paragraph 4 above.

Second, the applicant argues that the metal powder produced by the method of Löffelholz et al. ('062) is not uniform and would be contaminated. In response, the examiner notes that the arguments of the counsel cannot be relied upon as evidence. Löffelholz et al. ('062) disclose that the niobium powder agglomerates produced by their invention have controllable and satisfactory contamination level and properties (col.5, line 55 to col. 6, line 35).

Third, the applicant argues that Takahar et al. ('917) only discloses hydrogen as the reducing agent which is in contrast with the vaporized active metal as the reducing agent in the instant invention. In response, the examiner notes that Takahar et al. ('917) teach the molding step as claimed. The rejection of the limitations of the reducing step relies on the teaching of Löffelholz et al. ('062) (col. 1, lines 34-65) not the teaching of Takahar et al. ('917). The motivation to combine Löffelholz et al. ('062) with Takahar et al. ('917) as stated in the Office action of February 5, 2007 is proper.

Fourth, the applicant argues that combining the teaching of Honma et al. ('020) with the teachings of Löffelholz et al. ('062) in view of Takahar et al. ('917) would not have been obvious to one of ordinary skill in the art at the time the invention was made. In response, the examiner notes Honma et al. ('020) disclose reducing zirconium compounds by contacting an active metal (abstract) as claimed in the instant claim 4, which is not taught by Löffelholz et al. ('062) in view of Takahar et al. ('917). The motivation of the combination to produce highly uniform and pure zirconium alloy ingots efficiently and economically as stated in the Office action of February 5, 2007 is proper.

Fifth, the applicant argues that the powdery solid reductants disclosed by Kamei et al. ('527) are entirely different from the reaction agents recited in the instant claim 5. In response, the examiner notes that the arguments of the counsel cannot be relied upon as evidence. Kamei et al. ('527) disclose mixing metal compound, powdery reductants (i.e. active metal compound as claimed) and a binder as claimed (col. 8, lines 29-34 and 62-65). Both the claimed active metal compounds and the powdery reductants of Kamei et al. ('527) are compounds of the reducing agents (i.e. active metals of the instant invention and carbon of Kamei et al. ('527)) as reaction agents. The functions of the powdery solid reductants of Kamei et al. ('527) do not have to be the same as the functions of the active metal compounds of the instant invention, because they are mixed with different metal compounds and binders.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZ

7/16/2007

  
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